

ABSTRACT OF THE DISCLOSURE

A system and method is provided for combining advanced data partitioning and fine granularity scalability in the transmission of digital video signals. A partition unit 440 located in a base layer encoding unit 410 of a video encoder 400 partitions a base layer bit stream 310, 320 into a base layer first partition bit stream 310 and a base layer second partition bit stream 320. Each of the two base layer bit streams 310, 320 may be output directly or may be encoded before output. The two base layer bit streams 310, 320 may be encoded with a scalable encoder unit 442 or with a non-scalable encoder unit 444. Fine granularity scalability is improved by providing an extended base layer bit rate. The bit rate range for advanced data partitioning is also extended. The invention provides improved video coding efficiency, complexity scalability, and spatial scalability.